## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

## ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 10/24/2007 PATENT APPLICATION: US/10/774,378 TIME: 11:56:15

Input Set : A:\10774378.txt

Output Set: N:\CRF4\10242007\J774378.raw

```
2 <110> APPLICANT: Ono Pharmaceutical Co., Ltd.
      4 <120> TITLE OF INVENTION: Novel Polypeptides, DNAs encoding the polypeptides, and
utility of the
              Polypeptides
      7 <130> FILE REFERENCE: Q55589
      9 <140> CURRENT APPLICATION NUMBER: 10/774,378
     10 <141> CURRENT FILING DATE: 2004-02-10
     12 <150> PRIOR APPLICATION NUMBER: 09/380,276
     13 <151> PRIOR FILING DATE: 1999-08-27
     15 <150> PRIOR APPLICATION NUMBER: JP 9-43143
     16 <151> PRIOR FILING DATE: 1997-02-27
     18 <150> PRIOR APPLICATION NUMBER: PCT/JP98/00799
     19 <151> PRIOR FILING DATE: 1997-02-27
     21 <160> NUMBER OF SEQ ID NOS: 10
     23 <170> SOFTWARE: PatentIn version 3.0
     25 <210> SEQ ID NO: 1
     26 <211> LENGTH: 1251
     27 <212> TYPE: DNA
     28 <213> ORGANISM: Homo Sapiens
     30 <400> SEQUENCE: 1
     31 atggctttaa aagtgctact agaacaagag aaaacgtttt tcactctttt agtattacta
                                                                               60
     33 ggctatttgt catgtaaagt gacttgtgaa acaggagact gtagacagca agaattcagg
                                                                              120
     35 gatcggtctg gaaactgtgt tccctgcaac cagtgtgggc caggcatgga gttgtctaag
                                                                              180
     37 gaatgtggct tcggctatgg ggaggatgca cagtgtgtga cgtgccggct gcacaggttc
                                                                              240
     39 aaggaggact ggggcttcca gaaatgcaag ccctgtctgg actgcgcagt ggtgaaccgc
                                                                              300
     41 tttcagaagg caaattgttc agccaccagt gatgccatct gcggggactg cttgccagga
                                                                              360
     43 ttttatagga agacgaaact tgtcggcttt caagacatgg agtgtgtgcc ttgtggagac
                                                                              420
     45 cctcctcctc cttacgaacc gcactgtgcc agcaaggtca acctcgtgaa gatcgcgtcc
                                                                              480
     47 acggcctcca gcccacggga cacggcgctg gctgccgtta tctgcagcgc tctggccacc
                                                                              540
     49 gtcctgctgg ccctgctcat cctctgtgtc atctattgta agagacagtt tatggagaag
                                                                              600
     51 aaacccagct ggtctctgcg gtcacaggac attcagtaca acggctctga gctgtcgtgt
                                                                              660
     53 cttgacagac ctcagctcca cgaatatgcc cacagagcct gctgccagtg ccgccgtgac
                                                                              720
     55 tcagtgcaga cctgcgggcc ggtgcgcttg ctcccatcca tgtgctgtga ggaggcctgc
                                                                              780
     57 agccccaacc cggcgactct tggttgtggg gtgcattctg cagccagtct tcaggcaaga
                                                                              840
     59 aacgcaggcc cagccgggga gatggtgccg actttcttcg gatccctcac gcagtccatc
                                                                              900
     61 tgtggcgagt tttcagatgc ctggcctctg atgcagaatc ccatgggtgg tgacaacatc
                                                                              960
     63 tctttttgtg actcttatcc tgaactcact ggagaagaca ttcattctct caatccagaa
                                                                             1020
     65 cttgaaagct caacgtcttt ggattcaaat agcagtcaag atttggttgg tggggctgtt
                                                                             1080
     67 ccagtccagt ctcattctga aaactttaca gcagctactg atttatctag atataacaac
                                                                             1140
     69 acactggtag aatcagcatc aactcaggat gcactaacta tgagaagcca gctagatcag
                                                                             1200
     71 gagagtggcg ctatcatcca cccagccact cagacgtccc tccaggaagc t
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     73 <210> SEQ ID NO: 2
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74 <211> LENGTH: 1704

75 <212> TYPE: DNA

Input Set : A:\10774378.txt

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78 <400> SEQUENCE: 2
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81 tactagaaca agagaaaacg tttttcactc ttttagtatt actaggctat ttgtcatgta
                                                                       120
83 aagtgacttg tgaaacagga gactgtagac agcaagaatt cagggatcgg tctggaaact
                                                                       180
85 gtgttccctg caaccagtgt gggccaggca tggagttgtc taaggaatgt ggcttcggct
                                                                       240
87 atggggagga tgcacagtgt gtgacgtgcc ggctgcacag gttcaaggag gactggggct
                                                                       300
89 tccagaaatg caagccctgt ctggactgcg cagtggtgaa ccgctttcag aaggcaaatt
                                                                       360
91 gttcagccac cagtgatgcc atctgcgggg actgcttgcc aggattttat aggaagacga
                                                                       420
93 aacttgtcgg ctttcaagac atggagtgtg tgccttgtgg agaccctcct cctccttacg
                                                                       480
95 aaccgcactg tgccagcaag gtcaacctcg tgaagatcgc gtccacggcc tccagcccac
                                                                       540
97 gggacacggc gctggctgcc gttatctgca gcgctctggc caccgtcctg ctggccctgc
                                                                       600
99 tcatcctctg tgtcatctat tgtaagagac agtttatgga gaagaaaccc agctggtctc
                                                                       660
101 tgcggtcaca ggacattcag tacaacggct ctgagctgtc gtgtcttgac agacctcagc
                                                                        720
103 tccacgaata tgcccacaga gcctgctgcc agtgccgccg tgactcagtg cagacctgcg
                                                                        780
105 ggccggtgcg cttgctccca tccatgtgct gtgaggaggc ctgcagcccc aacccggcga
                                                                        840
107 ctcttggttg tggggtgcat tctgcagcca gtcttcaggc aagaaacgca ggcccagccg
                                                                        900
109 gggagatggt gccgactttc ttcggatccc tcacgcagtc catctgtggc gagttttcag
                                                                        960
111 atgcctggcc tctgatgcag aatcccatgg gtggtgacaa catctcttt tgtgactctt
                                                                       1020
113 atcctgaact cactggagaa gacattcatt ctctcaatcc agaacttgaa agctcaacgt
                                                                       1080
115 ctttggattc aaatagcagt caagatttgg ttggtggggc tgttccagtc cagtctcatt
                                                                       1140
117 ctgaaaactt tacagcagct actgatttat ctagatataa caacacactg gtagaatcag
                                                                       1200
119 catcaactca ggatgcacta actatgagaa gccagctaga tcaggagagt ggcgctatca
                                                                       1260
121 tccacccagc cactcagacg tccctccagg aagcttaaag aacctgcttc tttctgcagt
                                                                       1320
123 agaagcgtgt gctggaaccc aaagagtact cctttgttag gcttatggac tgagcagtct
                                                                       1380
125 ggaccttgca tggcttctgg ggcaaaaata aatctgaacc aaactgacgg catttgaagc
                                                                       1440
127 ctttcagcca gttgcttctg agccagacca gctgtaagct gaaacctcaa tgaataacaa
                                                                       1500
129 gaaaagactc caggccgact catgatactc tgcatctttc ctacatgaga agcttctctg
                                                                       1560
131 ccacaaaagt gacttcaaag acggatgggt tgagctggca gcctatgaga ttgtggacat
                                                                       1620
133 ataacaagaa acagaaatgc cctcatgctt attttcatgg tgattgtggt tttacaagac
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135 tgaagaccca gagtatactt tttc
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138 <210> SEQ ID NO: 3
139 <211> LENGTH: 1704
140 <212> TYPE: DNA
141 <213> ORGANISM: Homo sapiens
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144 <221> NAME/KEY: misc feature
145 <223> OTHER INFORMATION: Origin: human bone marrow stromal cell line HAS303
148 <220> FEATURE:
149 <221> NAME/KEY: CDS
150 <222> LOCATION: (45)..(1295) ·
152 <220> FEATURE:
153 <221> NAME/KEY: sig_peptide
154 <222> LOCATION: (45)..(119)
156 <220> FEATURE:
157 <221> NAME/KEY: mat peptide
158 <222> LOCATION: (120)..(1295)
160 <400> SEQUENCE: 3
56
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Input Set : A:\10774378.txt

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163													-29			_	
	_			_	caa	_								_			104
	Val		Leu	Glu	Gln	Glu	Lys	Thr	Phe	Phe	Thr	Leu	Leu	Val	Leu	Leu	
167		-20					-15	•				-10	•				•
					tgt												152
170	Gly	Tyr	Leu	Ser	Cys	Lys	Val	Thr	Cys	Glu	Thr	Gly	Asp	Cys	Arg	Gln	
	<b>-</b> 5 ·	•			-1	1	•			5					10		
173	caa	gaa	ttc	agg	gat	cgg	tct	gga	aac	tgt	gtt	CCC	tgc	aac	cag	tgt	200
174	Gln	Glu	Phe	Arg	Asp	Arg	Ser	Gly	Asn	Cys	Val	Pro	Cys	Asn	Gln	Cys	
175				15					20					25			
177	ggg	cca	ggc	atg	gag	ttg	tct	aag	gaa	tgt	ggc	ttc	ggc	tat	ggg	gag	248
178	Gly	Pro	Gly	Met	Glu	Leu	Ser	Lys	Glu	Cys	Gly	Phe	Gly	Tyr	Gly	Glu	
179			30		•			35					40				
181	gat	gca	cag	tgt	gtg	acg	tgc	cgg	ctg	cac	agg	ttc	aag	gag	gac	tgg	296
					Val												
183		45					50					55	_		_	_	
185	ggc	ttc	cag	aaa	tgc	aag	CCC	tgt	ctg	gac	tgc	gca	gtg	gtg	aac	cqc	344
					Cys											<del>-</del>	
187				_	_	65		_		-	70					75	
189	ttt	caq	aaq	qca	aat	tqt	tca	qcc	acc	aqt	qat	qcc	atc	tac	aaa	gac	392
					Asn						_			· <del></del>		<del>_</del>	
191			•		80	4				85	1			- <b>4</b>	90	<b>F</b>	
	tac	tta	cca	qqa	ttt	tat	agg	aag	acq		ctt	atc	aac	ttt		gac	440
					Phe												
195	- <u>4</u>			95		-1 -	5	-2	100	-1-		٠		105	<b>Q</b>		
•	atq	qaq	tat		cct	tat	ααa	gac		act	aat	cct	tac		ada	cac	488
					Pro												100
199			110	. 0.1			<b>4-1</b>	115					120	014			
	t.at.	acc		aaq	gtc	aac	ctc		aad	atc	aca	tcc		acc	taa	add	536
					Val				<del>-</del>				_	_		_	330
203	O <sub>I</sub> D	125	<b>002</b>		• • • •	11011	130	V (4.1	טעט	<b></b>	mru	135	****	niu	DCI	DCI	
	cca		gac	acq	gcg	cta		acc	att	atc	tac		act	cta	acc	acc	584
					Ala				_		_	_	_	_	_		204
	140	5	P	~ ~ ~ ~		145	1114		VUL	<b></b>	150	UCI		шси	πτα	155	
		cta	cta	acc	ctg	_	atc	ctc	tat	atc		tat	tat	aad	aga		. 632
					Leu												. 052
211	VUL	1100	<b>1</b> 00	1114	160	40 G	114	11CU	Cys	165	110	TYT	СуБ	шуы	170	GIII	
	+++	atσ	gag	aad	aaa	ccc	add	taa	tet		caa	tca	cad	aac		CaG	680
					Lys												000
215	1110	rice	OIG	175	цур	110	DCI	115	180	Пец	Arg	DET	GIII	185	116	GIII	
	tac	220	aac	_	gag	ata	taa	+~+		<i>α</i> 2 <i>α</i>	202	aat	asa		<b>a</b> aa	~~~	720
					Glu					_	<del>-</del>		_			. —	728
219	+ Y 1	WOII	190	DCI	GIU	π¢α	DCT	195	₽€U	Toh	ита	LTO.	200	חכמ	птр	GIU	
•	t a t	aaa		202	aaa	taa	taa		+~~	000	~~+	~~~		~+ <i>~</i>	<b>~~~</b>	200	776
					gcc Ala							_			_		776
223	-	205	1179	mr y	Ala	-ys	210	GIII	Cys	wrd	AT 9	_	DET	val	GTII	TIIL	
	taa	•	000	ata	000	++~		000	+~~	a+~	t~~	215	~~~	~~~	~~~	+~~	0.04
					cgc					<del>-</del>	_	_		_	_	_	824
440	Cys	arã	PIO	val	Arg	₽₽U	neu	LIO	DEI	MEL	Cys	cys	GIU	GIU	мтg	cys	

Input Set : A:\10774378.txt

227	220					225					230	•				235	
	agc	ccc	aac	ccg	gcg		ctt	ggt	tqt	qqq		cat	tct	qca	qcc		872
	Ser													•			
231					240			_	-	245					250		
233	ctt	cag	gca	aga	aac	gca	ggc	cca	gcc	ggg	gag	atg	gtg	ccg	act	ttc	920
	Leu										-	_	_	_			
235				255					260	-				265			
237	ttc	gga	tcc	ctc	acg	cag	tcc	atc	tgt	ggc	gag	ttt	tca	gat	gcc	tgg	968
238	Phe	Gly	Ser	Leu	Thr	Gln	Ser	Ile	Cys	Gly	Glu	Phe	Ser	Asp	Ala	Trp	
239			270					275					280				
	cct															_	1016
242	Pro	Leu	Met	Gln	Asn	Pro	Met	Gly	Gly	Asp	Asn	Ile	Ser	Phe	Cys	Asp	
243		285					290					295	•		•		
	tct																1064
	Ser	Tyr	Pro	Glu	Leu	Thr	Gly	Glu	Asp	Ile	His	Ser	Leu	Asn	Pro	Glu	•
	300					305					310					315	
	ctt											_		_	_	_	1112
	Leu	Glu	Ser	Ser		Ser	Leu	Asp	Ser	Asn	Ser	Ser	Gln	Asp	Leu	Val	
251					320					325					330		
	ggt		_	_		_	_				_				_	_	1160
	Gly	GLY	Ala		Pro	Val	Gln	Ser		Ser	Glu	Asn	Phe		Ala	Ala	
255				335					340					345			
	act										_	_		_			1208
	Thr	Asp		ser	Arg	Tyr	ASI		Thr	ren	val	GIU		Ата	ser	Thr	
259	asa	~a±	350	ata	2 a t	244	200	355	<b>~~~</b>	ata	~~ +	~~~	360	<del>-</del>		an an h	1256
	cag Gln								_			_	_	_		_	1256
263	GIII	365	ліа	пец	1111	MEC	370	SET	GTII	пеп	ASP	375	Gra	ser	Gry	Ald	•
	atc		.כפכ	cca	acc	act		acq	tac	ata	cac		act	taas	ara a r	act	1305
	Ile													Laac	ayaa		1303
	380				1114	385	0111	T 11T		Dea	390	OIU	ALG				•
		cttt	cct o	acaat	cagaa		atato	actac	r aad	cccaa	<del>-</del>	gtad	aticat	att d	attac	ggctta	1365
																caaact	1425
																gaaac	1485
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	gtgg							_				~			<b>.</b>	, <u> </u>	1704
	<210			_	_												
285	<211	> LE	ENGT	H: 41	۱7						•						
286	<212	> TY	PE:	PRT													
287	<213	> OF	RGANI	SM:	Homo	sar	piens		·		,						
	<220						•										
	<221					_					•						
291	<223	ro <	CHER	INFO	ORMAI	CION:	Ori	gin:	hun	nan k	one	marı	COW S	stro	mal d	cell li	ne HAS303
	<400																
	Met	Ala	Leu	Lys	Val		Leu	Glu	Gln	Glu		Thr	Phe	Phe	Thr	Leu	
296			_	_		-20	_		_ A		-15	<u>(</u>		_		-10	
299	Leu	Val	Leu	Leu	Gly	Tyr	Leu	Ser	Cys	Lys	Val	Thr	Cys	Glu	Thr	Gly	

Input Set : A:\10774378.txt

300					-5				-1	1				5		
303	Asp	Cys	Arg	Gln	Gln	Glu	Phe	Arg	Asp	Arg	Ser	Gly	Asn	Cys	Val	Pro
304		•	10					15	_	_		_	20	_		
307	Cys	Asn	Gln	Cys	Gly	Pro	Gly	Met	Glu	Leu	Ser	Lys	Glu	Cys	Gly	Phe
308		25					30					35				
311	Gly	Tyr	Gly	Glu	Asp	Ala	Gln	Cys	Val	Thr	Cys	Arg	Leu	His	Arg	Phe
312	40					45					50					55
315	Lys	Glu	Asp	Trp	Gly	Phe	Gln	Lys	Cys	Lys	Pro	Cys	Leu	Asp	Cys	Ála
316	_	_			60					65					70	
	Val	Val	Asn		Phe	Gln	Lys	Ala	Asn	Cys	Ser	Ala	Thr	Ser	Asp.	Ala
320		_	<b>-</b>	75 -	_	_	_	<b>_</b>	80				_	85		_
	Ile	Cys		Asp	Cys	Leu	Pro		Phe	Tyr	Arg	Lys		Lys	Leu	Val
324	<u>ما</u>	Dl	90	7)		<b>~</b> 1	<b>~</b>	95		~	~7	_	100	_	_	_
	GIY		GIN	Asp	Met	Glu		val	bro	Cys	GIY	_	Pro	Pro	Pro	Pro
328	Па езс	105	Dwa	TI å a	C	70 J	110	T	77 T	71	Т	115	T	<b>~</b> 7 -	7. T	<b>7</b>
	120	GIU	PIO	птэ	Cys	Ala 125	ser	цуѕ	val	ASII		vaı	ьys	тте	Ala	
		בומ	Sar	Sar	Dro	Arg	7 cn	Th~	אן א	T 011	130	ת דת	₹7~ T	T] 0	Crra	135 Sex
336	7,117	AIG	SCI	SCI	140	мц	wah	TIIT	АТА	145	Ala	нта	vaı	TTE	150	ser
	Ala	Len	Ala	Thr		Leu	Leu	Δla	T. <b>2</b> 11		Tlè	T.eu	Cvc	Val		ጥኒታ
340	1114	<b></b>	1114	155	vul	Dea	шси	niu.	160	ысц	110	пси	Cys	165	110	ıyı
	Cys	Lys	Arq		Phe	Met	Glu	Lvs		Pro	Ser	Trp	Ser		Ara	Ser
344	4	4	170					175					180		5	701
347	Gln	Asp	Ile	Gln	Tyr	Asn	Gly	Ser	Glu	Leu	Ser	Cys		Asp	Arq	Pro
348		185			_		190					195		-	3	
351	Gln	Leu	His	Glu	Tyr	Ala	His	Arg	Ala	Cys	Cys	Gln	Cys	Arg	Arg	Asp
352	200					205					210					215
355	Ser	Val	Gln	Thr	Cys	Gly	Pro	'Val	Arg	Leu	Leu	Pro	Ser	Met	Cys	Cys
356					220					225					230	
	Glu	Glu	Ala	_	Ser	Pro	Asn	Pro		Thr	Leu	Gly	Cys	Gly	Val	His
360	_			235	_				240					245		
		Ala		Ser	Leu	Gln		_	Asn	Ala	Gly	Pro		Gly	Glu	Met
364		Dese	250	nh -	Dla a	<b>~</b> 1		255	(m)]	<b>617</b>	0	<b>~</b> 7.	260	<b>~</b> 1	~7	51.
	val		Thr	Pne	Pne	Gly		ьeu	Tnr	Gin	ser		Cys	GIY	Glu	Phe
368 371	Sar	265	בות	Trn	Pro	Leu	270 Mot	Cln	7 cm	Dro	Mot	275	~1·-	7 02	7) < >>	т1
	280	тэр	ліа	тър	FIO	285	Met	GIII	ASII	PIO	290	GIY	GTA	Asp	ASII	295
		Phe	Cvs	Asp	Ser	Tyr	Pro	Glu	Len	Thr		Glu	Agn	Tle	Hie	
376			Cyb		300	- 7 -	110.	Ų I U	ЦСЦ	305	Ory	Oru	лър	116	310	DET
	Leu	Asn	Pro	Glu		Glu	Ser	Ser	Thr		Leu	Asp	Ser	Asn		Ser
380			•	315		~ <b>_</b>			320			<u>F</u>	,	325		501
383	Gln	Asp	Leu	Val	Gly	Gly	Ala	Val		Val	Gln	Ser	His		Glu	Asn
384		_	330		•	-	•	335					340			
387	Phe	Thr	Ala	Ala	Thr	Asp	Leu	Ser	Arg	Tyr	Asn	Asn	Thr	Leu	Val	Glu
388		345					350					355				
		Ala	Ser	Thr	Gln	Asp	Ala	Leu	Thr	Met	Arg	Ser	Gln	Leu	Asp	Gln
392						365					370					375
	Glu	Ser	Gly	Ala		Ile	His	Pro	Ala		Gln	Thr	Ser	Leu	Gln	Glu
396					380			•		385					390	

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 10/24/2007

PATENT APPLICATION: US/10/774,378

TIME: 11:56:16

Input Set : A:\10774378.txt

Output Set: N:\CRF4\10242007\J774378.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; N Pos. 27,28,29,30,31,32,33,34,35

## Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:9,10

VERIFICATION SUMMARY

DATE: 10/24/2007

PATENT APPLICATION: US/10/774,378

TIME: 11:56:16

Input Set : A:\10774378.txt

Output Set: N:\CRF4\10242007\J774378.raw

L:786 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:9

L:786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0